

Claims:

1. A catalyst for purifying exhaust gases, comprising a catalytic component including copper, ZSM-5, and β zeolite.

5

2. A catalyst according to claim 1, wherein a ratio by weight of the ZSM-5 and the β zeolite is in the range of 1 : 0.1 - 1 : 5.

10 3. A catalyst according to claim 1 or claim 2, wherein the ZSM-5 has a $\text{SiO}_2/\text{Al}_2\text{O}_3$ molar ratio of (20 - 100)/1 and an average crystal diameter observed under an electron microscope in a range not exceeding 0.5 μm and the β zeolite has a $\text{SiO}_2/\text{Al}_2\text{O}_3$ molar ratio of (10 - 50)/1.

15

4. A catalyst according to any of claims 1 - 3, wherein the copper is deposited on both of the ZSM-5 and the β zeolite.

20 5. A catalyst according to any of claims 1 - 4, wherein the zeolite is deposited in the range of 70 - 300 g and the copper is deposited in the state of oxide in the range of 3 - 30 g on a refractory three-dimensional structure, per liter thereof.

25

6. A catalyst according to any of claims 1 - 5 further comprising at least one element selected from the group consisting of phosphorus, cerium, and boron.

30

7. A process for purifying an exhaust gas, which comprises treating an exhaust gas from a diesel engine by the use of a catalyst set forth in any of claims 1 - 6.